

REMARKS/ARGUMENTS

Reconsideration of the captioned application is respectfully requested.

A. SUMMARY OF THIS AMENDMENT

By the current amendment, Applicants basically:

1. Cancel claims 3, 22 and 24 without prejudice or disclaimer.
2. Amend claims 1, 4, 7, 19, 23 and 28.
3. Respectfully traverse all prior art rejections.

B. PATENTABILITY OF THE CLAIMS

Claims 1, 3-5, 7-11, 13-28, 30-32 and 34-39 stand rejected under 35 USC 102(e) as being anticipated by U.S. Patent 6,137,880 to Bella. All prior art rejections are respectfully traversed for at least the following reasons.

Independent claims 1, 19, and 23 have been amended to include therein limitations of former dependent claims 3, 22, and 24, respectively. As such, independent claims 1, 19, and 23 require a resistance of at least one of the filter components be in series with at least one inductance of the filter components, the resistance being chosen such that the resistance in series with the at least one inductance assists in giving the filter its complex characteristic impedance.

The office action argues that U.S. Patent 6,137,880 to Bella discloses a filter wherein a resistance in series with at least one inductance assists in giving the filter a complex impedance. Applicants vigorously disagree: there is no statement in the text of Bella which would support the allegation of the office action. Moreover, figures 5, 6, 7 and 8 of U.S. Patent 6,137,880 to Bella all only show a RC network connected in parallel with the inductance. Thus, nothing in U.S. Patent 6,137,880 to Bella indicates that a series resistance to the inductor creates a complex impedance.

The office action further opines (relative to dependent claims 4 and 27) that U.S. Patent 6,137,880 to Bella discloses a parallel coupling of a first resistance in series with a first inductance connected in parallel with a second resistance in series with a second inductance. Applicant cannot find any such circuit or structure in U.S. Patent 6,137,880 to Bella. Instead, Bella shows an inductance in series with a circuit consisting of the parallel connection of an inductance and a RC combination.

The office action alleges (relative to dependent claims 7 and 30) that U.S. Patent 6,137,880 to Bella discloses a filter with at least one series combination of a first resistance in series with a first inductance and a second inductance in parallel with a second resistance. Again, U.S. Patent 6,137,880 to Bella does not show such a circuit. In Figs. 6-8 of U.S. Patent 6,137,880 to Bella, as well as in the Bella text, no resistance is indicated in series with the first inductance.

With exception of allowability of dependent claim 12, Applicants disagree with the office action findings concerning claims 8 - 17. Further, these claims are now dependent on the new independent claim 1 that is considered to be allowable.

Neither is claim 18 anticipated nor rendered unpatentable by U.S. Patent 6,137,880 to Bella. Bella shows the most conventional parallel coupling of the high pass and low pass circuits. Claim 18 concerns connecting the high pass and low pass filters in series in a manner indicated for example by Fig. 7 of the specification. Applicants' claim 18 connection provides considerable advantages to both the high pass and low pass paths. Note particularly: a) The low pass filter input capacitance is simultaneously the first element in the high pass filter; b) The high pass filter has a negligible influence on the low pass filter impedance; and c) All sections in the low pass filter can be built out to give transmission zeros in the stop band.

C. MISCELLANEOUS

All claims are deemed in condition for allowance. A formal indication of allowability is earnestly solicited.

The Commissioner is authorized to charge the undersigned's deposit account #14-1140 in whatever amount is necessary for entry of these papers and the continued pendency of the captioned application.

Should the Examiner feel that an interview with the undersigned would facilitate allowance of this application, the Examiner is encouraged to contact the undersigned.

Respectfully submitted,

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